Remarks

A. Status of the Claims

No claims have been revised or cancelled. Claim 72 is added, non-limiting support for which can be found in the specification at page 5, line 24, to page 6, line 2. Therefore, claims 45-55, 57-59, and 62-72 are pending, with claims 57-59, 62, and 67-71 being withdrawn from consideration at this time as being directed to a non-elected invention.

B. Restriction Requirement

Applicant requests that the method claims be rejoined, as the composition and method claims both share a general inventive concept that has a special technical feature that is not disclosed by the cited art (see below arguments). Further, the composition claims are believed to be allowable, which provides an additional ground for rejoining the method claims.

C. Obviousness Rejections

The following three separate obviousness rejections under 35 U.S.C. § 103(a) are presented:

> **1.** Claims 45-51 and 63-66 are allegedly obvious over the combination of a multitude of references. In particular, the Examiner argues that the claims are obvious over U.S. Publication 2005/0196626 ("Knox") in view of U.S. Publication 2003/0082399 ("He"), U.S. Patent 6,489,028 ("Degand"), and either U.S. Publication 2002/0182316 ("Gilliard") or U.S. Patent 4,814,207 ("Siol") or U.S. Publication 2003/0108816 ("Imai"), and further in view of Hawley's Condensed Chemical Dictionary.
>
> **2.** Dependent claims 53 and 55 are said to be obvious over the combination of Knox, He, Degand, and either one of Gilliard, Siol, or Imai, and in further view of U.S. Publication 2004/0012002 ("Vassal").
>
> **3.** Dependent claims 53-54 are said to be obvious over the combination of Knox, He, Degand, and either one of Gilliard, Siol, or Imai, and in further view of Vassal.

The following sections focus on the rejection noted in the first numbered paragraph, as the remaining rejections concern dependent claims.

1. Applicant's Independent Claim 63

Independent claim 63 concerns an ophthalmic lens with a "colored latex" layer. This "colored latex" layer "comprises a mixture of an uncolored initial latex and at least one initial aqueous dispersion of at least one water-insoluble pigment being in the form of particles, wherein at least X% of the particles has a particle size L that is 370 nm or less in the initial aqueous dispersion, and X being equal to or greater than 90."

2. Examiner's Position Concerning the Primary Reference, Knox, Is Faulty and Premised on Hindsight Reasoning

The Examiner's position concerning Knox is found at pages 2-4 of the Action. There are statements made by the Examiner about Knox that need clarification. The following subsections address these statements.

a. Use of particles in Knox's photochromic coating is optional

For instance, at page 2 of the Action, the Examiner states that Knox discloses a "photochromic organic polymeric coating [that] is chosen from polyurethane based coating (claim 16) and inorganic, composite particles are also incorporated in to the photochromic polymer coating…." This statement appears to suggest that Knox mandates the addition of particles into the coating, which is not the case. Knox actually states that such particles can optionally be used:

> It should be understood that particles are not required to be in the photochromic coating and hence the particles can be present in an amount 0 percent (zero percent).

Knox at paragraph [0092].

This is important in the context of the obviousness rejection, as it is Applicant's position that the Examiner is simply selecting an optional ingredient (particles) to use in Knox's coating, and then further selecting particular particles (*e.g.*, titanium dioxide or colloidal silica) from a

wide range/expansive list of optional particles (see paragraphs [0086]-[0089]) to say that such combination would necessarily result in a colored latex. Such a selection is simply a needle-in-a-haystack approach, which is not supportive of the current rejection.

Indeed, Courts have found non-obviousness based on the Examiner's approach to Knox. *See, e.g.*, *In re Luvisi*, 144 U.S.P.Q. 646, 649 (CCPA 1965). The invention at issue in *In re Luvisi* concerned, *inter alia*, a composition that can be used to kill undesired vegetation (*i.e.*, a weed killer). Id. at 647. The active ingredients in the claimed composition was a 1-alkyl-3-phenyl substituted urea (in particular 3-p-chlorophenyl-1, 1-dimethyl urea (a.k.a. "CMU") and a hydrated alkali metal borate. Id. at 647-48. The composition was rejected for being obvious over a combination of prior art references, in particular, Ryker *et al.* in view of either Knight, Crafts *et al.*, or Litzenberger. *Id.* at 648. Ryker *et al.* concerned a combination of substituted ureas with another herbicidally active compound. *Id.* Ryker *et al.* stated that "it is characteristic" of the substituted urea compounds "to coat with other herbicidally active compounds, both of the hormonal type herbicidal compounds, to give synergistic herbicidal results." *Id.* at 649 (italics in original). "The term 'sodium borates' [was] included in a list of contact type herbicidal compounds which [Ryker et al. says] can be used." *Id.* The secondary references disclosed a weed-killing composition having sodium chlorate and a suitable hydrated borate (Knight), a soil sterilizing compound having borax and sodium chlorate (Crafts *et al.*), and various sodium chlorate-borax combinations were effective in controlling certain weeds (Litzenberger). *Id.*

The Board of Patent Appeals affirmed the obviousness rejection by reasoning that "since borax, a hydrated alkali metal borate, is taught by the secondary references to be a herbicidal compound, it would be obvious to a skilled chemist to employ borax as a herbicidal sodium borate broadly suggested in Ryker *et al.*" *Id.*

The CCPA overturned the obviousness rejection. One of the reasons for this was that although Ryker *et al.* listed sodium borates as a possible class of compounds that could be combined with the substituted ureas, it did so in a generic list that included several other classes of compounds. *Id.* In particular, the CCPA reasoned:

> Ryker *et al.* contains, for all practical purposes, a "needle-in-the-haystack" type of disclosure with respect to borax. It states, in effect, that if one mixes an alkyl urea of a certain designated formula with any others herbicidal agent, a composition giving synergistic herbicidal results will be obtained. [Ryker et al.] set[s] forth the following list of other materials which can be used: [17 generic classes of compounds are listed]. Nearly all of these entries are generic in nature and together represent a very wide range of chemical types, including both organic and inorganic. The "preferred compounds are said to be selected from the group consisting of [a list of compounds is provided, which does not include sodium borate]. Neither the genus "sodium borates" nor the species therein is mentioned. The patent then discloses approximately sixty specific compositions alleged to be illustrative of the invention. None of these compositions contains borax, or any other alkali metal borate. We therefore conclude that Ryker et al. does not legally disclose any particular borate.

Id. at 649-650. The CCPA then noted that the secondary references failed to suggest combining their respective ingredients with substituted ureas such as the ones disclosed in Ryker *et al*. *Id.* From this, the CCPA concluded that the claimed composition was not obvious in view of the prior art. *Id.* at 651. Interestingly, the CCPA quoted and emphasized the following passage from *Ex parte Garvey*, 41 U.S.P.Q 583, 584 as being "very much in point" with the facts in its case (note that the rejection in *Ex parte Garvey* was based on anticipation not obviousness):

> While the invention here claimed in its broader aspect is doubtless embraced within the speculative teachings of the references...The likelihood of producing a composition such as here claimed from a disclosure such as shown by the Dykstra patent would be about the same as the likelihood of discovering the combination of a safe from a mere inspection of the dials thereof.

In re Luvisi at 650-51.

The facts of the present obviousness rejection, and in particular, Knox's laundry list of various types of particles that can optionally be used in its photochromic coating, are similar to

the facts of *In re Luvisi*. For instance, Knox primarily concerns a photochromic coating applied to the surface of a substrate (Knox at Abstract). A polysiloxane surface active agent is also used to prevent migration of the photochromic material within the coating (Knox at paragraph [0021]). In paragraph [0083] of Knox, it is explained that particles can be used with said coating, and that such particles are optional ingredients (paragraph [0091]). The list of said particles that are contemplated include both generic classes (*e.g.*, metal oxides, metal nitrides, metal carbides, metal sulfides, metal silicates, metal borides, metal carbonates) and "non-limiting examples" of said generic classes (paragraphs [0086]-[0089]). Further, the exemplary photochromic layers in Knox do not appear to include any such particles (paragraphs [0241]-[0256]). Other than this, there is no particular guidance in Knox to use particular particles such as titanium dioxide or colloidal silica. In fact, and again, the exemplary compositions of Knox do not use such particles.

Given Knox's disclosure as a whole, and without the benefit of Applicant's specification and corresponding claims (*i.e.*, without the use of hindsight reasoning), the reasonable conclusion that can be reached is that a person of ordinary skill in the art upon reading this reference would have to sift through a multitude of materials to settle on titanium dioxide or colloidal silica as the examiner has done **without** any particular guidance from Knox that such a combination would produce a "colored latex." Such a search and find mission to build Applicant's claimed invention is analogous to the "needle-in-a-haystack" approach that was found to be ineffective to support an obviousness rejection.

In reality, the only way to accomplish the search and find mission/needle-in-a-haystack approach taken by the Examiner is to use hindsight reasoning. Applicant certainly understands that a hindsight approach is necessary to search the invention. However, one should avoid using hindsight analysis to support the underlying obviousness rejection. In this case, the leap from

Knox's optional use of particles and the generic classes used to describe such particles to produce a "colored latex" as claimed by Applicant can only be done by relying on hindsight reasoning. In this regard, by using hindsight reconstruction, the Examiner has individually searched and combined each element claimed by Applicant without having to sift through the myriad of different combinations of such elements. Applicant respectfully submits that more is needed to support the Examiner's conclusion under the current fact pattern. *See* MPEP § 2142 ("[k]nowledge of applicant's disclosure must be put aside in reaching this determination…impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art"); *see also In re Geiger*, 815 F.2d 686 (Fed. Cir. 1987) ("Based upon the prior art and the fact that each of the three components of the composition used in the claimed method is conventionally employed in the art for treating cooling water systems, the board held that it would have been *prima facie* obvious, within the meaning of 35 U.S.C. 103, to employ these components in combination for their known functions and to optimize the amount of each additive…Appellant argues…hindsight reconstruction or at best,…'obvious to try'…**We agree with appellant**") (emphasis added).

b. A colored latex is not necessarily produced in Knox

Despite the clear lack of guidance from Knox on Applicant's claimed "colored latex," the Examiner simply concludes that by combining an optional ingredient (particles, which are described in both generic classes and non-limiting examples of said generic classes, and in which such particles are not used in the exemplary coatings) with Knox's photochromic coating, such a combination would have both been obvious and would have inherently produced a color latex:

> Although, Knox does not expressly disclose the colored latex, but does disclose initial uncolored latex and a pigment. Thus, the initial uncolored latex and a pigment such as colloidal silica and titanium oxide (white pigment) when they are mixed with each other, colored latex comprising uncolored latex and a pigment is formed.

Action at pages 3-4. This statement suggests that the Examiner is using an inherency theory to support the current obviousness rejection. Such a theory requires that Knox's photochromic latex would "necessarily result" in a colored latex everytime colloidal silica and titanium oxide are used. *See* MPEP § 2112 (IV) ("To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'").

The reality of Knox's disclosure, however, is that the photochromic latex appears to be designed to be colorless unless exposed to UV radiation:

> The use of photochromic organic coatings on plastic substrates, particularly plastic substrates such as thermoplastic polycarbonates, has been described. Any organic polymeric material that is compatible with the chosen organic substrate and which will function as a host material for the organic photochromic materials or compounds chosen for use can be used as the material for the photochromic coating. **Desirably, the host organic polymeric coating has sufficient internal free volume for the photochromic material to function efficiently, *e.g.*, to change from a colorless form to a colored form that is visible to the naked eye in response to ultraviolet (UV) radiation, and to change back to the colorless form when the UV radiation is removed.** Otherwise, the precise chemical nature of the organic coating that is used as the host material for the photochromic material(s) is not critical.

Knox at paragraph [0105] (emphasis added). The emphasized language suggests that the photochromic latex can include additional components/compounds (*e.g.*, particles), but that the end result is that said latex is designed to be "colorless." Couple this with the fact that Knox further explains that the use of colloidal silicas also "result[s] in colorless, transparent coatings" (paragraph [0095]), is suggestive that irrespective of the components contemplated for use by Knox, the end result/desired result is the production of a "colorless" latex.

This is objective evidence from Knox that directly contradicts the Examiner's inherency theory. That is, this evidence suggests that Knox's latex do no "necessarily" result in a colored latex if additional components such as particles art added. Rather, it suggests that colorless latexes are produced. Couple this with the fact that Knox also explains that the use of said particles within its photochromic latex should be used in amounts that do not "adversely affect, e.g., diminish, the optical properties of the photochromic organic polymeric coating" (paragraphs [0091] and [0087]), further supports the argument that the inclusion of any of the contemplated particles within Knox's coating would result in a colorless coating.

In addition, Knox also distinguishes between particles and pigments, which further confirms that Knox's contemplated use of particles within its photochromic coating results in a colorless coating (see above citations) and that if one so desires, pigments, not particles, can be separately used (see paragraph [0092]). Indeed, and as noted in the above paragraph, Knox's particles are designed to not "interfere with the optical properties of the photochromic polymeric coating."

When the objective evidence of Knox is compared with the Examiner's inherency argument, it is clear that the objective evidence confirms that Knox's photochromic coating with particles does not necessarily result in a colored latex. Rather the expected result is a colorless latex. For at least this reason, Applicant submit's that the Examiner's inherency theory cannot be maintained in view of the objective evidence of record.

Further, it must be noted that current products having metal oxides such as titanium dioxide (TiO_2) exist on the market, such products being colorless. *See* Appendix A. Also, and as noted in Knox, the size of the contemplated particles are on a nano-scale, with preferred sizes ranging from 5 to 50 nanometers to 5 to 25 nanometers (paragraph [0083]). The use of this size

further pushes the likelihood that such particles, if used in Knox's coating, would result in a colorless coating.

Given the objective evidence of record and Knox's own disclosure, the Examiner's inherency theory cannot be maintained, as such evidence supports the likelihood that if TiO_2 particles were used in Knox's coating, such coating would indeed be colorless. If nothing else, the evidence confirms that such a coating would not necessarily have color.

3. The Motivation/Apparent Reason Used by the Examiner to Combine Knox With the Secondary References of He or Degand Is Faulty

The Examiner argues that it would have been obvious to use the coating compositions disclosed in He or Degand with the photochromic coating of Knox based on the teachings of either one of Gilliard, Siol, or Imai. The rationale supporting this is "the desire to have an excellent adhesion between Knox's and He or Degand's coatings. Action at page 5.

Applicant respectfully disagrees for at least the following reasons.

First, Gilliard describes a lens coated with a binding solution (paragraph [0067]), preferably comprising at least one monomer (paragraph [0071]), and a swelling agent to allow penetration of the monomer into the lens to improve adhesion. Preferred swelling agents include cyclopentanone, cyclohexanone, or methyl ethyl ketone (paragraph [0077]).

As for Siol, it discloses a method for making a scratch resistant and weather resistant coating on a shaped article (*e.g.*, organic glass) by applying to it a coating. The coating is a cured thin film produced by the polymerization of polyfunctional acrylic and/or methacrylic monomers. To bring about a partial dissolution of the substrate for the purpose of improving adhesion, organic solvents such as methyl ethyl ketone can be added to the coating composition (col. 7, ll. 62-65).

Both Gilliard and Siol fail to describe the use of latex swelling agents.

Applicant's claimed colored latex, by comparison, is a polymer dispersion in an aqueous phase (see claim 63).

In Gilliard, its composition does not include any polymers. Rather it uses monomers in solution in organic solvents (paragraph [0070]), and not in an aqueous phase. The same is true of Siol's composition, which are all non-aqueous or do not include any solvent (col. 7, l. 63, to col. 8, ll. 4-5).

Therefore, a person having ordinary skill in the art would not have regarded either of Gilliard's or Siol's teachings as being relevant to the latex's of Applicant's invention or of those disclosed in Knox, Degand, or He. Stated another way, there is no apparent reason to use Gilliard's or Siol's disclosures as a motivation to combine the teachings of Knox with those in Degand or He.

As for Imai, this reference discloses a curable urethane resin layer formed by coating and heat-crosslinking a resin composition containing, as essential components, a polymerizable monomer compound and a polymer resin having a weight average molecular weight of, *e.g.*, 1,000 to 200,000. The composition contains an organic solvent (paragraph [0078]) or is water-based (paragraph [0079]). Once cured, the dry film is applied to a substrate. Treatment of the surface of the substrate with a liquid swelling agent makes it possible to improve adhesion properties between the surface of the substrate and the dry film (paragraph [0096]).

A key difference between Applicant's claimed invention and the composition disclosed in Imai is that the swelling agent is not applied to a colored latex in Imai. Rather, it is applied directly onto a substrate, using a composition which is not a coating composition. A person having ordinary skill in the art would not consider this to be the same. Indeed, it was surprising to observe that the pigment was not lost through elution in the coating composition upon swelling.

In claim 63, a latex swelling agent is employed within the composition that is applied onto the latex.

4. Comments Made by the Examiner in Response to Applicant's Previous Arguments

Applicant respectfully disagrees with comments made at page 8 of the Office Action. In particular, it is alleged by the Examiner that:

> However, Applicant discloses that use of pigments which includes colloidal silica, titanium oxide or cesium oxide. While Knox does not explicitly refer to colloidal silica, titanium oxide or cesium oxide as pigments, given that they are identical to the ones used by the applicant in his invention, it is clear that they would intrinsically be pigments. Further, it should be noted that while Knox does disclose other pigments or particles than those claimed, Knox does not disclose a vast number of pigments from which to choose.

Action at page 8.

The above statement is inaccurate in several respects. For instance, Applicant's specification does not identify either colloidal silica, titanium oxide, or cesium oxide as pigments. In fact, the specification does not even mention titanium oxide or cesium oxide. As for colloidal silica and the various other metal oxides mentioned in its specification, they are mentioned in relation to anti-abrasion and anti-reflective coatings that can be layered onto the claimed colored latex coating. Stated another way, the disclosed colloidal silica and metal oxides in Applicant's specification are used for coatings not related to the claimed colored latex:

> The anti-abrasion coatings that are recommended in the present invention include coatings obtained from silane hydrolyzate-based compositions, especially epoxysilane hydrolyzate compositions, such as those described in the French patent application N.sup.o 93,026,49 and in the U.S. Pat. No. 4,211,823. Preferably, anti-abrasion coating compositions comprise an epoxysilane hydrolyzate and a colloidal silicon dioxide and/or a colloidal metal oxide such as TiO_2, ZrO_2, Sb_2O_5, or Al_2O_3.
>
> A preferred anti-abrasion coating composition comprises an epoxysilane and dialkyldialkoxysilane hydrolyzate, colloidal silica and a catalytic amount of aluminium acetylacetonate, the balance being substantially solvents that are classically used for formulating such compositions.

> ...
>
> As already stated, the coating layer may also be a layer belonging to an antireflective coating.
>
> As an example, the antireflective coating may comprise a mono- or multilayered film, made of a dielectric material such as SiO, SiO_2, Si_3N_4, TiO_2, ZrO_2, Al_2O_3, MgF_2 or Ta_2O_5, or mixtures thereof.

Applicant's specification at page 9, lines 3-22.

In fact, both Applicant's specification and Knox's disclosure consistently do not identify/associate titanium dioxide, cesium oxide, nor colloidal silica as pigments. Again, and as noted above, Knox distinguishes these compounds from "pigments" (Knox at paragraph [0092]). That is, both Knox and Applicant's disclosure fail to identify or even suggest using titanium dioxide, cesium oxide, and colloidal silica as pigments. Indeed, the only party arguing that such compounds are pigments that could be used to produce a colored latex as claimed by Applicant is the Examiner. The reality, however, is that both Applicant's specification and Knox do not identify such compounds as pigments. Further, the Examiner has offered no evidence showing that cesium oxide and silica are even considered to be pigments by persons having ordinary skill in the art. Therefore, the contention that such compounds "would intrinsically be pigments" to produce a colored latex is unsupported by the evidence of record.

Also, Knox clearly states that its particles (which include, among several others, titanium dioxide, silicone dioxide, and cesium oxide) "should not seriously interfere with the optical properties of the photochromic polymeric coating" (paragraph [0087]). This strongly suggests that such particles are colorless in the context of Knox. Such a conclusion is reasonable in view of the fact that Knox's photochromic layer is described by Knox as being "colorless" (paragraph [0105]) and in further view of the fact that the coating described in Appendix A, which includes titanium dioxide, is colorless.

In addition, the statement made by the Examiner that "[f]urther, it should be noted that while Knox does disclose other pigments or particles than those claimed, Knox does not disclose a vast number of pigments from which to choose" (Action at page 8), respectfully misses the point. Knox specifically and unequivocally distinguishes between particles (which include titanium dioxide, cesium oxide, colloidal silica, and a ***vast*** number of other particles listed in generic classes (paragraphs [0086]-[0089])) and pigments (paragraph [0092]). Therefore, if a person having ordinary skill in the art were to consider Knox, they would consider particles to be different from pigments. Thus, the Examiner's focus on a particular set of particles is indeed picking and choosing from a ***vast*** number of particles without any guidance which particles should be used. This is a needle-in-a-haystack approach and is indicative of non-obviousness (see above arguments and supporting legal precedent).

Second, the Examiner cannot escape the fact that Knox's coatings are described as being "colorless." Therefore, even if a person having ordinary skill in the art were to select, titanium dioxide as the particle in Knox, the likely result of such a selection is the production of a "colorless" photochromic coating, as that it what the collaborators expected.

The Examiner's rationale used at page 8 of the Office Action fails to consider the actual teachings of Knox and relies on a misreading of Applicant's specification.

5. Summary

For at least the above-stated reasons, Applicant requests that the current obviousness rejections be withdrawn.

D. Conclusion

Applicant believes that the present document is a complete response to the Office Action. The present case is in condition for allowance and such favorable action is requested. The Examiner is invited to contact the undersigned attorney at (512) 536-3020 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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Date: August 25, 2011

APPENDIX A

CHINA SUPPLIERS
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Shanghai Huzheng Nano Technology Co., Ltd.

Product Groups

- Metal coating (12)
- Coating Additives (4)
- Electronic chemicals (21)
- Beauty and health care products (23)
- Finished Products (22)
- Air clean product (20)
- Natal and Metal Oxide (97)
- Finishing Agent (31)
- Coating (45)
- Additive (3)

Transparent &Colorless Self-Clean Coating (Hydrophilic type)

Transparent &Colorless Self-Clean Coating (Hydrophilic type)

Share |

Method: Spray
Use: Plastic Coatings
Level: Finish Coat
Substrate: Glass
Appearance: Solvent
Export Markets: North America, South America, Eastern Europe, Southeast Asia, Africa, Oceania, Mid East, Eastern Asia, Western Europe

Contact Now

Add to Basket Add to Product Favorites

Index

vip photo

Audited Supplier

Product Description

[Product Introduce]

The product is made of nano material and high-performance resin by nano technology, it can naturally decompose the organism and be anti-dust in air and on the surface of glass and other basic material, so the building and glass surface can be water-proof, hydrophilic, anti-dust, anti-fog and air purifying effects. And they realize self cleaning.

[Characteristic]

Colorless, transparent, and visibility and transparency aren't be affected.

Environment friendly. No-toxic, no pollution.

Easy construction method, Spraying and brushing, easily operation, no need special instruments.

Rapidly form film, fast action, the product can be sprayed and brushed on the surface of metals, glass, Marble, tile, plastic products and so on. The hard and durable nano protecting film with anti-water, hydrophilic, self-clean and anti-fog is formed within several minutes

Unique nano protecting film has super hydrophilic and self-cleaning function that water can form an even film rapidly, and bring away the surface pollution, so the surface will keep clean.

Hard and durable, it can last at least 1 year after spraying one time.

[product characteristics]

Index name	Performance parameter
Appearance	Colorless and transparent
Content (SiO2)	Min 1.7%
Content(TiO2)	Min 1%
pH value	5-6
Particle size	

Particle size
Max 5nm

Alcohol compounds
Max96.1%

Water
Max 1.2%

[product function]

Water-proof, dust-proof

Hydrophilic, foil-removal

Anti-oil

Anti-fog, anti-dew

Purifying air

Anti-UV

[principle]

Self-cleaning principle

There are nano material with light catalytic activity in the coating, it can produce energy which makes the film absorb water and oxygen molecules to form hydroxyl radical and reactive oxygen after absorbing some length sunlight, so it has strong oxidizing capacity which can degrade the organism into CO2 and H2O, so the surface has self-clean function, and easily clean.

Anti-fog principle

The function of anti-fog also has something with photocatalyst active substance. With the sunlight, part of oxygen bond bridge is opened to dissociate near absorbed water molecules into OH-, for good hydrophilic capacity of OH-, the water will completely and wetly spread to form a transparent thin film while contacting the coating surface, so the anti-fog function is obtained.

[application field]

All kinds of glass: Glass wall of building, glass of building windows and doors, decorative glass of building

Vehicle, train glass: Front and rear windshield and window of vehicle and train, wing mirror of vehicle

Anti-fog glass: Bath room, Steam Room, decorative anti-fog glass

All kinds of Billboards, solar glass

[construction method]

Step 1. Cleaning glass: Clean the foil and oil from the glass surface...

Step2. Grinding the glass surface with grind paste to ensure the glass with better capacity of adhesion and hydrophilicity

Step3. Washing the glass surface with water, then dry with clean cloth.

Step 4. Spraying hydrophilic coating: Spraying the coating on the glass surface evenly with spray gun, spray three times if it is one time in level and vertical directions, the surface dry time needs one and half an hour, the real dry needs one week, and the surface should be protected with week.

The thickness of coating should be controlled within 4~5um, the construction area: 50-60 m2/L

[storage]

Stored in cool place and far away from the hot resource

Shelf life: Two years at room temperature.

[specification]

1/2/20 L

[Caution]

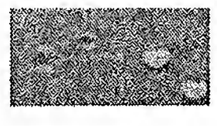
Don't contact eyes and mouth,

Sealed after usage

The product is flammable, please pay attention to fire safety.

Contact Now | Add to Basket

Loess Powder



Hydrophilic Transparent &Colorless Self-Clean Coating

Self-Clean Coating for Glass

Water-Proof and Dust-Proof Self Cleaning Coating

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